



# Engr. Khuram Shahzad

Data & ML Scientist |(Software Engineer & Developer)

A progressive smart soul who loves innovations, research and development.

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Profile: ([LinkedIn](#), [GitHub](#), [StackOverFlow](#))

## Professional Goals

- Looking for a long-term career and challenging opportunities to gain expertise, contributing to the organizational growth and thus catalyzing personal growth.
- I am to become a well-known scientist because I am kind of person who is expert in or enthusiastic about technology. Especially R&D.

## Work Experience

### Data Scientist

Jan,2023— Present

- Strong knowledge of statistics and machine learning algorithms.
- Proficiency in programming languages such as Python, and SQL.
- Experience in data cleaning, processing, and visualization.
- Expertise in Machine Learning (Supervised/Unsupervised), Deep Learning (NN, CNN, LSTM, RNN, Transformer, GAN, GNN), Natural Language Processing (NLP).
- Expertise in working with big data technologies such as Hadoop, Spark, and NoSQL databases.
- Ability to develop and implement predictive models for business use cases.
- Strong communication skills to effectively communicate complex findings to non-technical stakeholders.
- Familiarity with deep learning frameworks such as TensorFlow, Keras, and PyTorch.
- Experience in working with cloud platforms such as AWS or Google Cloud.

### Assistant Director (IT/MIS) — TESCO, Peshawar

Jan,2023— Present

- Works in close collaboration with the Director of Information Technology in providing leadership, direction, and guidance to staff and managing operational activities to achieve the department's long and short-range goals and business objectives.
- Provide primary oversight in the coordination of the daily technology support operations.
- Coordinate with technical staff on the implementation of various new technology initiatives (ERP etc.).
- Performs the management of technology, equipment and software developments etc...
- Develops and maintains services catalog describing the offerings of ITS services and participates in the development of service level agreements for the delivery of those services.

### Computer Instructor at FAST — National University of Computer and Emerging Sciences Feb,2021— Jan,2023

- Design and conduct Lab exercises as per departmental requirements
- Teach and supervise the students using programming sessions, practical/ live labs, demonstrations, discussion groups, case studies, field assignments and independent or group projects.
- Lab I taught:
  - \* Data Structure, Object Oriented Programming
  - \* Software Design and Architecture
  - \* Software Construction and Development, Computer Networks
  - \* Computer Organization and Assembly Language
  - \* IICT and DLD
- Programming Language: C, C++, Java, C#, Python, Assembly, HTML/CSS, etc.
- Updated and managed existing products and provided beneficial technical support to colleagues.

- Experienced .NET Developer possessing well-developed field expertise and knowledge and an extraordinary track record of employer and client satisfaction.
- At MA business Hub, I was mainly in charge of the development of new software systems using:
  - \* Visual Studio 2017/ 2019/2022 (C#.NET 4.7 and 4.\*)
  - \* SQL Server 2016/2018
  - \* Crystal Report Serer Pack 24/32
  - \* MS Window Server 2012/2016
  - \* Entity Framework

**Role and Responsibility:**

- Develop and maintain desktop applications using C#, .NET, and WinForms
- Design and implement relational databases using SQL Server
- Write complex SQL queries, stored procedures, and functions
- Integrate and customize third-party libraries and APIs in the applications
- Develop and maintain reports using Crystal Reports
- Collaborate with the team to design and implement application architecture using Entity Framework
- Work with the team to deploy and maintain applications on Windows Server
- Troubleshoot and debug issues in the applications
- Implement and maintain SQL Table Dependency for real-time data update
- Translate application storyboards and use cases into functional applications
- Design, build, and maintain efficient, reusable, and reliable code
- Worked on the improvement of programming procedures in order to make the whole software development process more effective.
- Updated and managed existing products and provided beneficial technical support to colleagues.

**Technology used:**

- C# and .NET Framework for desktop application development
- Visual Studio IDE for development and debugging
- SQL Server for relational database management and development
- Crystal Reports for designing and generating reports
- Entity Framework for object-relational mapping and data access
- WinForms for designing desktop application user interfaces
- Windows Server for application deployment and management
- SQL Table Dependency for real-time data updates.

## Projects/Innovations (worked on)

### Project#1: Human Action Recognition using CNN and LSTM( MS Deep Learning Project)

#### Role and Responsibility:

- Develop a deep learning model using CNN and LSTM for Human Action Recognition
- Design and implement the data pipeline for preprocessing and augmentation of input data
- Conduct experiments to optimize model performance by adjusting hyperparameters, architecture, and training techniques
- Conduct error analysis and identify areas for improvement
- Collaborate with the team to design and implement a user interface for the model
- Document the development process and code for future reference

#### Technology used:

- Python, TensorFlow
- Keras
- Sklearn, Matplotlib

### Project#2: Big Data (statistics on Airline data using Hadoop, MS Semester project, Python, Java, C)

#### Role and Responsibility:

- Identify valuable data sources and automate collection processes
- Undertake preprocessing of structured and unstructured data
- Analyze large amounts of information to discover trends and patterns
- Build predictive models and machine-learning algorithms
- Combine models through ensemble modeling
- Present information using data visualization techniques
- Propose solutions and strategies to business challenges

#### Technology used:

- Google Cloud Console, Google Cloud Engine.
- Hadoop, Spark
- Zero MQ, Kafka, CUDA

### Project#3: Image Caption Generator (MS Semester project, Python)

#### Role and Responsibility:

- Develop and train a deep learning model using Convolutional Neural Networks (CNNs) and Recurrent Neural Networks (RNNs) for image caption generation
- Preprocess and prepare image and text data for the model
- Use techniques such as transfer learning and data augmentation to improve model accuracy and reduce training time
- Evaluate and fine-tune the model using metrics such as BLEU and METEOR scores
- Collaborate with a team of data scientists, developers, and designers to integrate the image caption generator into a larger application or system

#### Technology used:

- Python, TensorFlow
- Keras, Sklearn, Matplotlib

## **Project#4: Smart Point of Sale: (Desktop Application) (C#.NET)**

### **Role and Responsibility:**

- Developing C# .NET solutions for the organization.
- Creating in-house applications using the .NET framework.
- Translate application storyboards and use cases into functional applications
- Design, build, and maintain efficient, reusable, and reliable code
- Debugging and maintaining written code.
- Defining and organizing projects on an ongoing basis.
- Reporting and resolving issues related to .NET projects.
- Identifying and handling technical risks and issues.
- Working in a project team alongside other developers.
- Providing technical support to stakeholders in the organization.
- Reporting on project statuses and developments to senior team members.
- Participating in project meetings with management and other team members

### **Technology used:**

- Visual Studio 2017/ 2019/2022 (C#.NET 4.7 and 4.\*)
- SQL Server 2016/2019
- Entity Framework and Crystal Report Server Pack 24/32
- MS Window Server 2012/2016
- Laravel for API writing.
- SQL Table Dependency, Triggers, Threading, API's, SMTP, etc..

## **Project#4: Email Marketing App and Advance Search Engine. (C#.NET, Fiverr)**

### **Role and Responsibility:**

- Develop the application according to client requirements.

### **Technology used:**

- Visual Studio 2022 (C#.NET 4.8 )
- SMTP, Spire Dox, Sockets, Http, Threading, etc..

## **Project#5: Mirpur Visa (Web application, Laravel)**

## **Project#6: School Management System (C#.NET Desktop Application, Internship NTC MUST AJK)**

## **Project#7: Smart and Secure Transport System (Prototype and Designing.)**

## Academic Qualification

Education and Institute	Result	Duration
• MS Data Science, (FAST-National University of Computer and Emerging Sciences)	3.5 (In-Progress)	2021-2023
• BS Software Engineering, (Mirpur University of Science and Technology, AJK)	3.72/4.00 CGPA	2016-2020
• Intermediate in Pre-Engineering, (Govt Model Science College Muzaffarabad, AJK)	858/1100	2014-2016

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## Projects/Innovations (supervised)

### Subject Software Construction and Development:

- Visual 2022 (C#.NET 4.7 and 4.\*)
- SQL Server 2016/2019
- Crystal Report Serer Pack 24/32
- Projects List
  - Face Recognition Voting System,
  - Passport tracking System
  - Library Operations Automation System,
  - Medicine Expiry Alert Management system
  - POS Billing and Inventory System
  - Online Tuitions Software, Buss Management System
  - Logistics Tracking system ,Hostel Management System

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## Programming Language/Framework

### (worked on)

- Python (Machine Learning, Deep Learning)
- Python (Big Data, Hadoop)
- Qt Designer (Python, Desktop Application)
- C# .NET and Crystal Report (for desktop app development)
- Entity Framework
- SQL, SQL Server/ Management studio
- Java (Application Development)
- Assembly (16bit, 32bit and 64 bit)
- Java for Desktop GUI development
- PHP for API writing in Laravel
- C++ for Data Structure and GUI app
- C for CUDA development in Big Data.
- Android Development for Mobile App.
- Laravel.
- MERN development (get trained by PSB)

## Professionals (worked on)

- Big Data Analytics.
  - \* Hadoop, Spark
  - \* ZeroMQ, Kafka
  - \* CUDA
- Machine (supervised and unsupervised Learning )
  - \* Feature (scaling, selection and feature extraction)
  - \* Training and Testing.
  - \* Data visualization.
- Libraries used in Machine Learning:
  - \* Numpy, Scipy, Skikit-learn, Tensorflow
  - \* Keras, PyTorch, Pandas, Matplotlib
- Software Development
- Software Design and Architecture
- OOP Concept, Data Structure & Networking
- MVC and Entity Framework
- Laravel (Backend)
- Graphic Designing

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## Certificates/Trainings/Workshops (Delivered)

- One month **Master Trainer of Desktop Application using C# & .NET** at FAST National University of Computer and Emerging Science. [01-Jul-2020 — 29-Jul-2022]

## Certificates/Trainings/Workshops (Received)

- **“Introducing Entity Framework”** Certificate of Completion by Cam Soper and Microsoft .NET !
- Certificate of Completion **“Introducing .NET Core”** by Scott Hanselman, Microsoft .NET , and Kendra Havens!
- Certificate of Completion **“Git from Scratch”** by Morten Rand-Hendriksen!
- 3-month internship in C#.NET and SQL at Network Telecommunication Center MUST.
- **1 month Mean/Full Stack Development** Training by **Pakistan Software Export Board** & by Dice Analytics MongoDB, Express. js, AngularJS, and Node. js. MEAN is an end-to-end JavaScript stack largely used for cloud-ready applications. [Venue: Online 8 May to 30 May 2021]
- 7-month Diploma holder in computer application programs from Moon Creation School of Information Technology MZD. (MS word, Excel, Power point, In page, CorelDraw, Photoshop and Illustrator)
- 3-month English Language Course certified from Moon Creation School of Information Technology MZD.
- C#, C++, python, Java, SQL and HTML course (certified from Solo Learn).
- Attended **8th Dean & Directors Conference** 2021 by National Business Education Accreditation Council Topic: Business Education in a Time of Change, Toward a new normal for business school in Pakistan. [Date: 6th - 7th April 2021 Online Zoom]
- **COMSET ICCBS International** Workshop on **Artificial Intelligence & Machine Learning in life Science** COMSET (OIC Ministerial Standing Committee on Scientific and Technological Cooperation) [25 March 2021]
- Teacher of Teaching: **4MAT Teaching Pedagogy** by Quality Enhancement Cell , Peshawar
- Attend One day Introductory workshop on **Block Chain and its working** Host: Engr. Mashal Khan Venue: Coal Lab FAST NUCES PWR

## Membership

- Member of IEEE.
- Member of
- ACM (Association for Computing Machinery).

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## References

### IMAGINE FOUNDATION E.V.

Full Stack Developer Recommended  
by Imagine: [International Recommendation letter for IT related jobs](#)

### LINKEDIN

Link: [See all certification](#)

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Dear Sir/Madam,

My name is Khuram Shahzad and As an experienced Machine Learning Engineer with a background in Software Engineering and a current pursuit of an MS in Data Science, I have a strong foundation in a wide range of tools and techniques related to data science. I also have 4 years of experience as a C# WinForm Developer, which has allowed me to develop a strong foundation in software development and programming principles.

As a data scientist with expertise in Machine Learning (Supervised/Unsupervised), Deep Learning (NN, CNN, LSTM, RNN, Transformer, GAN, GNN), Natural Language Processing (NLP), Reinforcement Learning, Artificial Intelligence, and Big Data Analytics (Hadoop, Spark, CUDA, ZMQ, Kafka), I have a comprehensive understanding of the latest techniques and tools used in the field. I possess a diverse skill set and expertise in a wide range of cutting-edge technologies and techniques.

I specialize in developing supervised and unsupervised machine learning models, as well as deep learning models for computer vision and other applications. In the field of Natural Language Processing, I have extensive experience applying techniques such as sentiment analysis, text classification, speech recognition, and named entity recognition to analyze and extract insights from text data. Additionally, I have explored the use of Reinforcement Learning in optimizing decision-making processes, and have expertise in Big Data Analytics technologies such as Hadoop, Spark, CUDA, ZMQ, and Kafka.

My knowledge of Artificial Intelligence has allowed me to identify and implement innovative solutions for a wide range of business problems. With a proven track record of successful projects in these specialized areas, I am confident in my ability to deliver high-quality work that meets client's needs and exceeds their expectations.

I would like to submit my application as I believe that it would be a great opportunity for me to further grow both professionally and personally.

Thank you for your time and consideration and I look forward to speaking with you soon.

Sincerely,

Khuram Shahzad